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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/185,248 11/03/98 EIDSON

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TM02/0724

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EXAMINER

TIMOTHY N TROP
TROP PRUNER HU & MILES
8554 KATY FREEWAY STE 100
HOUSTON TX 77024

ARMSTRONG, A

ART UNIT

PAPER NUMBER

2641

DATE MAILED:

07/24/01

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.

09/185,248

Applicant(s)

EIDSON ET AL.

Examiner

Angela A. Armstrong

Art Unit

2641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8,10-12,16,19-21,23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8,10-12,16,19-21,23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. In consideration of applicant's amendment of claim 19, the rejection under 35 USC § 112, - second paragraph is withdrawn.
2. In consideration of applicant's amendment of claim 23, the objection of claim 23 is withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-8, 10-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farhangi et al. (US Patent No. 5,647,008) in view of Bergher et al. ("Dolby AC-3TM and MPEG-2 Audio Decoder IC with 6-channels Output", IEEE Trans. on Consumer Electronics, August 1997) and Hinderks (US Patent No. 5,706,335).
5. Regarding claims 1, 7, 8, and 11;

Receiving a first audio data stream in a first perceptually based format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Obtaining a second audio data stream in a raw format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Combining the decoded first audio data stream with the second audio data stream is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Farhangi et al. discloses receiving compressed data streams and decoding the data streams into a raw format, however they do not specifically teach that the received data is encoded in Dolby AC-3 or MPEG-2 format or that the raw format is linear pulse code modulated. Refer to Bergher et al. who teach an audio decoder that receives Dolby AC-3 and MPEG-2 data streams and decodes the data into pulse code modulated formats for use in US digital TV and HDTV, DVD, and general multimedia applications (Abstract; page 357; page 358).

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the multimedia signal mixing system of Farhangi et al. to implement receiving Dolby AC-3 and MPEG-2 coded data and decode the data into a pulse code modulated format to allow for recovery of the original pulse code modulated data for use in general multimedia applications as suggested by Bergher et al., to allow for mixing the raw format signals with other raw format signals to produce combined output signals as suggested by Farhangi et al.

Farhangi et al. teach transmitting the encoded combined audio data stream at col. 7, lines 18-21 for further processing or handling and they implement a CODEC on the receiving end of the system. However, they do not specifically teach that the combined encoded data is transmitted to a CODEC circuit. Refer to Hinderks who teaches transmitting coded signals through a transmission channel with limited bandwidth using a CODEC (col. 3, lines 33-40) for the purpose of allowing for two-way communication between multiple devices (col. 2, lines 33-37).

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to transmit the combined encoded signals to a CODEC circuit to allow for two-way communication between multiple devices as suggested by Hinderks.

6. Regarding claims 2, 3 and 4

Farhangi et al. teaches encoding the combined signals at Figure 2, element 296. However they do not specifically teach encoding the combined data in an AC-3 or MPEG format. Refer to Bergher et al. who teach that AC-3 and MPEG compress signals into stream that provides reduced transmission bandwidth or recording area without audibly degrading the perceived quality.

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to encode the combined signals in either an AC-3 or MPEG format for the purpose of compressing the signal to achieve reduced transmission bandwidth or recording area without degrading the audio quality as taught by Bergher et al.

7. Regarding claim 5

Transmitting the encoded combined audio data stream to a circuit is taught by Farhangi et al. at col. 7, lines 18-21;

8. Regarding claims 6 and 10,

Combined audio data stream comprises a digital data stream is taught by Farhangi et al. at figure 2,

9. Regarding claims 12 and 16;

Receive a first audio data stream in a first perceptually based format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Decode the first audio data stream into a raw format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Acquire a second audio data stream in a raw format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Combine the decoded first audio data stream with the second audio data stream is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Farhangi et al. teaches encoding the combined signals at Figure 2, element 296. However they do not specifically teach encoding the combined data in a perceptually based format. Refer to Bergher et al. who teach that perceptually based formats such as AC-3 and MPEG compress signals into stream that provides reduced transmission bandwidth or recording area without audibly degrading the perceived quality.

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to encode the combined signals in either a perceptually based format for the purpose of compressing the signal to achieve reduced transmission - bandwidth or recording area without degrading the audio quality as taught by Bergher et al.

Farhangi et al. teach transmitting the encoded combined audio data stream at col. 7, lines 18-21 for further processing or handling and they implement a CODEC on the receiving end of the system. However, they do not specifically teach that the combined encoded data is transmitted to a CODEC circuit. Refer to Hinderks who teaches transmitting coded signals through a transmission channel with limited bandwidth using a CODEC for the purpose of allowing for two-way communication between multiple devices (col. 2, lines 33-37).

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to transmit the combined encoded signals to a CODEC circuit to allow for two-way communication between multiple devices as suggested by Hinderks.

10. Claims 19-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farhangi et al. in view of Bestler et al. (US Patent No. 5,638,112) and Hinderks (US Patent No. 5,706,335).

11. Regarding claims 19-21 and 23,

Farhangi et al do not disclose receiving a video data stream in a MPEG compressed format. However, refer to Bestler et al who teach a system for processing television signals in an analog or digital format which receives signals (audio and video), decodes the signals and combines the signals for the purpose of achieving various desirable effects when processing television signals (abstract, col. 1, lines 34-67 continuing to col. 4, 1-32).

Therefore, to the extent that Farhangi et al do not disclose a MPEG compressed video format, it would have been obvious to one of ordinary skill at the time of invention to modify the system to also process video signals for the purpose of providing for the processing of television signals, as taught by Bestler et al, in the mixing multimedia system of Farhangi et al.

Farhangi et al teach transmitting the encoded combined audio data stream at col. 7, lines 18-21 for further processing or handling and they implement a CODEC on the receiving end of the system. However, they do not specifically teach that the combined encoded data is transmitted to a CODEC circuit. Refer to Hinderks who teaches transmitting coded signals

through a transmission channel with limited bandwidth using a CODEC (col. 3, lines 33-40) for the purpose of allowing for two-way communication between multiple devices (col. 2, lines 33-37).

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to transmit the combined encoded signals to a CODEC circuit to allow for two-way communication between multiple devices as suggested by Hinderks.

Response to Arguments

12. Applicant's arguments filed May 21, 2001 have been fully considered but they are not persuasive.

13. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Farhangi et al teach that there is a need for a multimedia platform that accepts multiple audio input signals, mixes the signals and outputs the combined audio signals, and Bergher et al. teach receiving Dolby Ac-3 and MPEG data streams and decoding the data streams into pulse code modulated format (a raw data format) for use in a variety of applications

such as digital TV, DVD and general multimedia applications. Further, Hinderks teaches that the use of a CODEC is desirable to allow two-way communication between multiple devices.

In response to applicant's argument that Farhangi et al do not teach decoding of audio signals because the word "decode" is not used, the examiner disagrees and argues that the deformatter of Farhangi et al decodes the received data streams. Applicant is referred to col. 3, lines 45-49 in which Farhangi et al disclose receiving a MPEG signal and a MPEG deformatter is used to extract the raw audio data.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

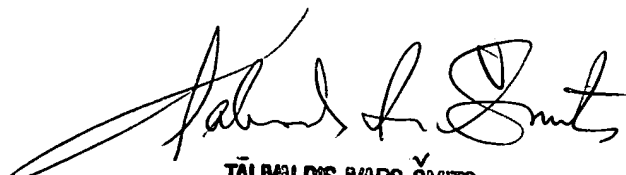
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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on 703-305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6306 for regular communications and 703-308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

AAA
July 22, 2001



TĀLMĀDIS MĀRS ŠMITS
PRIMARY EXAMINER